MEMORANDUM State of Alaska

TO: Rick Reed
Habitat
Juneau

DATE: May 26, 1978

FILE NO:

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FROM: William Bergmann
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SUBJECT: Bradfield River, Round 3

Previous logging operations in the Bradfield River systems have typified some of the worst logging practices that have ever been used in the Petersburg-Wrangell Area. This situation hasn't occurred solely due to the ineptness of the contractor or the Forest Service. The Bradfield system is a very delicate hard-to-road water shed.

ADF&G first became involved when we were asked to approve numerous gravel removal sites within the River's floodplain. There was some question then as to the environmental soundness of using the gravel and what extent it's use would have on any channel changing and additional sediment deposition in the river. Due to the lack of observations of salmonids in the system and the glacial turbidity during most flows, a position of out-of-sight, out-of-mind was taken by the Department. Since that time, the failures of roads, bridges, and borrow pits have occurred. What these failures introduced to the watershed during flood stages probably had no significant effect upon the survival of any salmonids in the systems. However, any material that was introduced during subsiding or low flows may have had a detrimental effect on one of the most productive coho systems in the area. Also, since that time, observations of large numbers of coho have been made in both the East Fork and the North Fork. Single observations of coho have been made in October and November that exceed some of the major spawning grounds on the Stikine system.

Since operations first began in the Bradfield over 10 years ago, we have therefore learned that, 1) we should probably not be loggingin the area with present systems and, 2) the Bradfield is a major producer and should be watched and guarded accordingly. With a more active role by the Department, the increased expertise of the Forest Service and a man on the job watching the contractor, any additional operations in the area should have much less effect upon the fisheries habitat.

Although most of the future work will presumably be taking place above the limits of anadromous fish migration, this should not lessen our concern with the operations. Main stem spawning of coho does occur and upstream activities easily affect downstream spawning areas.

The following comments are made in regards to temporary roads, skylining, and flood plain borrow pits.

Temporary fords for road construction that are located on the annual flood plain and consists of river material are probably better than building on the side slope and creating extensive cut banks of non-river material that is later washed out during the flood stages. Removal of bridges and approaches prior to flood stage

should prevent the extensive washouts and subsequent channel changing that have previously occurred. The closer the temporary roads are to the level of the floodplain; the less potential damage that could occur.

In regards to skylining, it sounds like a much less harmful means of obtaining the timber than additional bridges and roads.

The removal of gravel within the river system should be under very specific restraints. Have the previous borrow pits been examined for their successes and failures? An examination of future sites by an experienced hydrologist with subsequent site specific recommendations should occur. A few of the more logical ones are: 1) A strip of material should be left around the edges of the pit to strain out sediments disturbed by the machinery. 2) Pits should not be dug below the low water table. 3) Any activities should be limited as to the scope of the removal. 4) Care should be taken not to make fish traps for rearing or adult salmonids, ie, grading, after each season.

It appears that a lot of knowledge has not been gained since the first operations began on the Bradfield. Documentation of activities should be done to provide a basis for future decisions.